

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003486**Date Inspected:** 15-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Zhang Bao Lei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:****OBG Assembly Bay-2**

This Quality Assurance (QA) inspector arrived at ZPMC in Shanghai China for observations of the Orthotropic Bridge Girders (OBG) and Self Anchored Suspension (SAS) Bridge. During this QA inspectors observations in the OBG assembly bay 2 it was noted that ZPMC was fitting up floor beam at panel point 31 for the 3 to 5AW segment. ZPMC was observed as tack welding the floor beam in place and installing temporary diagonal braces to hold the component in place. Also noted for segments 3 to 5AW was SAW welding of deck panel splice SEG015*-002 by welding operator Wang Lan Ying under WPS-B-T-2221-B-L2c-S-2. The Certified Welding Inspector for ZPMC at this location was Zhang Bao Lei who also had additional QC personnel to assist in the monitoring of the welding and in process progression. This QA inspector performed Ultrasonic verification (UT) on a CJP splice for component number SP-358-001-001. The length of weld was 2810 mm and this QA inspector performed a 10% review. At the time of the QA review the verification appeared to be within compliance. A TL-6027 will be generated for this location.

CWR Bay 7

This QA inspector observed ZPMC in bay 7 performing repairs on component number FB024-001-122 under Critical Weld Repair (CWR) number B-CWR-128 due to UT reject from ZPMC. During the initial excavation ZPMC had removed excess weld metal beyond the 65% which then required this location to have engineer's approval in the form of a CWR. This location for the excavation was a transition weld for the web plate under SPCM. The material thickness was 30 mm to 18 mm at the locations for the CWR. The excavation depth performed was 14 mm and length of 280 mm for 2 locations. ZPMC welded this repair location as per the approved CWR which was monitored by this QA inspector. The post weld heat treatment PWHT was agreed upon to be total time of 2 hours due to the thickness. Their WPS had stated 1 hour for each 25mm for PWHT. The start

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of the cool down for the PWHT was 2030 hours (8:30 pm) ZPMC's CWI Huang Wen-Pang was present during the welding repair operations in this bay monitoring parameters and procedure progression.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco , 1-381-694-2685, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
